MONTANA AQUATIC INVASIVE SPECIES PROGRAM

Photo: Montana DNRC

2014

Montana Departments of:
Agriculture
Fish, Wildlife & Parks
Natural Resources and Conservation
Transportation

Contents

Montana Aquatic Invasive Species Program

2014 ANNUAL REPORT

EXECUTIVE SUMMARY

The Montana Aquatic Invasive Species (AIS) Program works to execute the Montana AIS Management Plan, the goal of which is to ***"Minimize the harmful ecological, economic, and social impact of AIS through prevention and management of introduction, population growth, and dispersal of AIS into, within, and from Montana".***

The AIS program is shared among four partner agencies with varying authorities and regulatory roles.

- Montana Fish, Wildlife & Parks (FWP) has authority over all invasive aquatic plants, animals and pathogens;
- Montana Department of Agriculture (MDA) provides technical support and helps administer funding of AIS activities through the Noxious Weed Trust Fund;
- Montana Department of Natural Resources and Conservation (DNRC) also provides technical support and annually administers thousands of dollars in AIS survey and control work through the Reclamation and Development Grants Program (RDGP); and
- Montana Department of Transportation provides additional enforcement support through their Motor Carrier Services Division (MCS) and provides the locations for many of Montana's watercraft Inspection Stations.

Program Highlights:

- Increased coordination among agencies.
- 34,121 watercraft inspected by FWP in 2014.
- 454 fouled boats intercepted, the majority being fouled by vegetation and standing water.
- 3 boats found with invasive mussels—two at the Dillon station, one at Hardin.
- 12 cases of illegally transported live fish.
- Aquatic vegetation surveys conducted on 27 waterbodies.
- Multi-taxa monitoring conducted at 623 sites on 187 different waterbodies.
- 1,618 plankton samples from Montana and nine other states processed at the Montana AIS Laboratory. No new AIS populations were found in any Montana sampling locations.
- $377,650 in AIS control and survey work grants awarded by DNRC from 2013-2014.
- $232,667 in research and control of noxious aquatic weeds supported through MDA's Noxious Weed Trust Fund Grants for FY13 &14.
- 60 commercially-hauled vessels inspected by MCS officers at Montana Ports of Entry in 2014.

- Alerts for all commercially-hauled watercraft travelling through Montana sent by MCS to staff at FWP in 2014.

INTRODUCTION

Aquatic Invasive Species (AIS), (also referred to as exotic, non-indigenous or non-native species), are organisms that invade aquatic ecosystems beyond their natural, historic range. Their presence has great potential to harm native ecosystems or commercial, agricultural, or recreational activities dependent on these ecosystems. These species include non-native fish, mussels, clams, plants, and disease-causing pathogens. AIS can overwhelm lakes and rivers, kill native animals and plants, and damage the delicate ecosystems that keep our waters clean and abundant.

AIS harm recreational and agricultural resources by damaging boats and gear, clogging water pipes and hydropower facilities, causing ecological damage to fragile aquatic ecosystems, obstructing community water sources, and choking off irrigation systems. Once an invasive species is established, it can be extremely costly and/or logistically impossible to eradicate. Every water user in the state has a vested interest in protecting Montana's water resources from the effects of AIS. Prevention, early detection, and education are the best strategies to combat this problem.

The Montana Department of Fish, Wildlife & Parks (FWP), Montana Department of Natural Resources and Conservation (DNRC), Montana Department of Agriculture (MDA), and Montana Department of Transportation (MDT) collectively implement the Montana Aquatic Invasive Species Management Plan. The goal of this plan is to minimize the harmful impacts of AIS by limiting or preventing the spread of AIS into, within, and out of Montana. This goal is achieved through coordination and collaboration between these partner agencies and stakeholder groups; prevention of new AIS introductions in the state; early detection and monitoring of invasive aquatic plants, animals and pathogens; control and eradication of new and established AIS populations; and outreach and education efforts. Each of the four agencies contributes in different ways to achieving these goals, and these methods are addressed in the "Agency Updates Section" Starting on page 4.

BY THE NUMBERS

0 Invasive mussel infestations detected in MT

3 aquatic noxious plants infest MT waters

17 MT lakes & reservoirs significantly impacted by AIS

187 water bodies surveyed in 2014

34,121 watercraft inspected by FWP in 2014

PROGRESS REPORT ON "BLUEPRINT FOR IMPROVING AIS IN MONTANA"

In 2013, the Montana's Governor's office issued a guiding document for addressing AIS at the statewide level. Since that time, much of the blueprint has been implemented.

Noteworthy program accomplishments include:

- The consolidation of regulatory structure by transferring authority over invasive aquatic plants from MDA to FWP, including the transfer of a FTE, funding, and equipment. FWP now has authority over all aquatic organisms. DNRC provides technical support and grant funding to local entities for AIS survey and control work. Agriculture continues to be involved in AIS through

administration of funding of AIS activities from the Noxious Weed Trust Fund, and from a consulting standpoint on all other AIS issues and activities.

- The addition of Montana Department of Transportation as the fourth partner agency in the overall Montana AIS Program. The inclusion of MDT into the AIS fold recognizes the role that roads play in the spread of AIS, as the movement of trailered watercraft is recognized as being one of the primary vectors for new AIS to enter Montana, and for existing AIS to disperse further.
- Adding additional inspection stations to fill perceived gaps in statewide coverage.
- Experimenting with opening inspection stations earlier in the season to address the movement of Montana residents who may travel to warmer (and often highly infested) areas in the winter with their boats and return home before FWP's regular watercraft inspections stations open.
- Enhancing data collection by using mobile devices and moving toward a paperless system.
- Increasing the Program's engagement with the Northwest Power Planning Council and The Pacific Northwest Economic Region (PNWER), in addition to other regional partners (Western Regional Panel, Aquatic Nuisance Species Task Force, 100th Meridian Initiative, etc.) and neighboring states and provinces, to collectively explore region-wide approaches and cost-sharing opportunities.
- The formation of the Montana Invasive Species Council, which will be composed of state and federal agency representatives, key stakeholder groups, utility and irrigator representatives, conservation districts, and a private landowner.
- Providing survey and monitoring data to The Natural Resource Heritage Program (NRHP). Upon working with the NRHP, we learned that Montana's Natural Resource Information System (NRIS) is not designed to accept invasive species data. As such, native plant data collected through AIS monitoring will be stored in NRIS; invasive data will be housed in the Early Detection & Distribution Mapping System (EDDMapS West).

STATEWIDE MONTITORING

Monitoring Montana's water bodies to control known populations of AIS and detect new occurrences is a top priority for the state. This work has been accomplished through collaboration among agencies and with many other governmental and non-governmental agencies. Figure 1 shows the locations of AIS known to exist in Montana. While there has been a slight spread of existing populations of these four species in the last two years, there have been no new populations, although spread is occurring in river systems. For example, curlyleaf pondweed and Eurasian watermilfoil were found in the lower Madison River this past year, and likely spread from the Jefferson River during periods of connectivity. Extensive sampling of waters across the state has also failed to find any evidence of zebra or quagga mussels in Montana waters. Washington, Oregon, Idaho, Wyoming, and Montana form the largest contiguous area in the lower 48 that is believed to still be free of invasive mussels, and these states (along with Canada) are working together to strengthen region-wide prevention efforts.

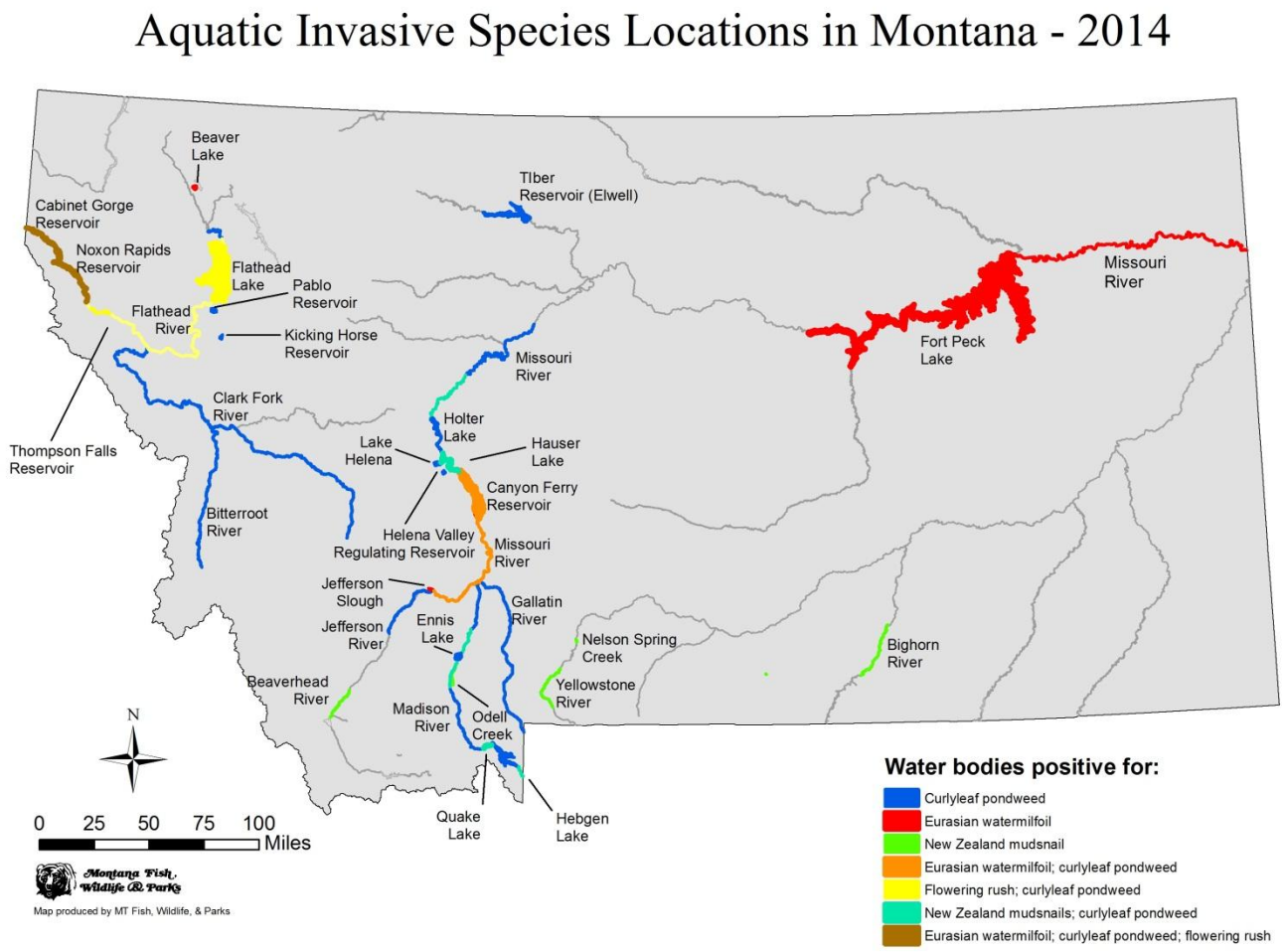


Figure 1. Aquatic Invasive Species Locations in Montana.

AGENCY UPDATES

Fish, Wildlife & Parks

Montana Fish, Wildlife & Parks contributes to the overall Montana AIS Plan by focusing on coordination, prevention, monitoring, and outreach and education efforts. This contribution takes the form of collaboration and coordination with agency partners and state and regional stakeholder groups, running the statewide watercraft inspection station program, producing and distributing educational materials, providing AIS training to interested groups, conducting multi-taxa AIS surveys at hundreds of sites across the state, and operating the Montana AIS Lab.

Highlights from the past two years include:

- FWP hosted the 2014 AIS Summit, which was a two-day, panel-style conference attended by 80 AIS partners. This event generated in-depth discussions about coordination, law enforcement, outreach and education, future needs, and other critical AIS topics.

- Following the transfer of authority over aquatic plants from MDA to FWP in 2013, FWP took sole charge of the watercraft inspection station program, operating 18 semi-permanent and roving stations in 2013, and 20 in 2014. Station inspectors processed 30,376 and 34,121 boats, respectively, leading to interceptions of hundreds of boats contaminated with various AIS, including 16 boats with zebra or quagga mussels.
- FWP's law enforcement arm has become increasingly involved with the AIS Program, committing one FTE per year (divided among several wardens) to the cause. Heightened involvement from FWP's wardens has led to decreased drive-bys, increased compliance, and greater visibility for the AIS Program.
- FWP's law enforcement, fisheries, and communication and education divisions also teamed up to produce a new ad campaign targeting the illegal transportation of live fish, which is a top priority for the agency. This practice has already led to hundreds of illegal and usually irreversible introductions of fish into Montana's waters, and stopping it has become a top priority for the agency. Watercraft inspection stations intercepted 3 cases of illegally transported live fish in 2013, and 12 cases in 2014.

A summary of FWP's AIS program's activities follows.

Coordination and Collaboration

FWP has had an AIS coordinator since 2004. The coordinator serves to coordinate all AIS activities within FWP and among the four partner agencies, and works to facilitate further efforts with other agencies and groups like the U.S. Fish and Wildlife Service, U.S. Forest Service, Bureau of Reclamation, Flathead Basin Commission, Tribes, neighboring states and provinces, county weed districts, and many other important stakeholders. As mentioned previously, Montana is actively seeking out new ways to engage our regional partners in collaboration on this issue. Close partnerships with states in the same watersheds provide essential information on how AIS is being spread regionally, allow programs to learn from each other, and can help leverage limited funding sources.

Figure 2 shows water-user origin and movement into Montana in 2014, and illustrates the enormous challenge facing Montana and the other four Rocky Mountain and Pacific Northwest states (Wyoming, Idaho, Washington, Oregon) where zebra and quagga mussels have not been detected to date.

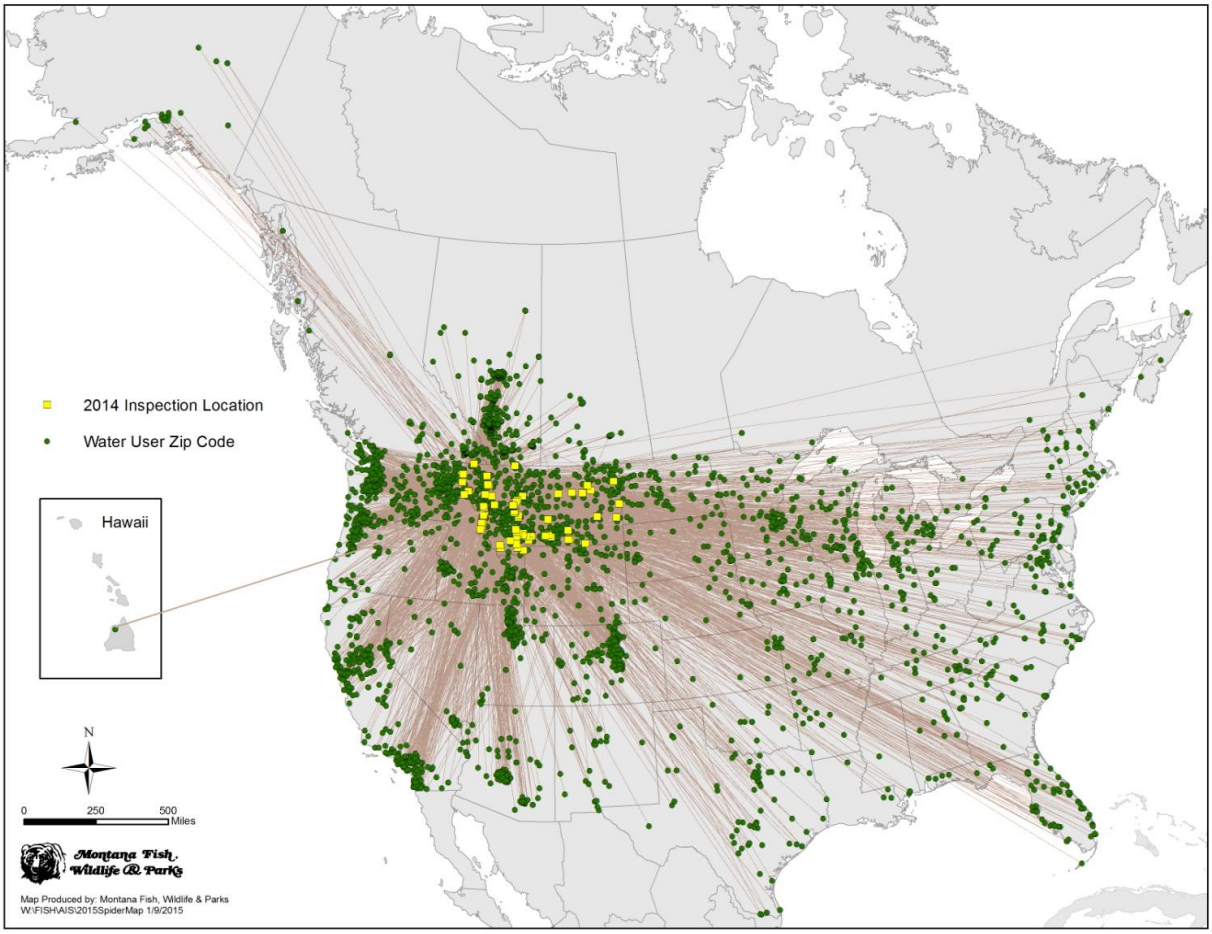


Figure 2. Surveyed Water User Movement into Montana in 2014 (by zip code).

The FWP watercraft inspection station program continues to grow thanks to sustained funding and support from the state legislature and close coordination with partner agencies and organizations. Watercraft inspection stations are funded through House Bill (HB)2 and HB586 and various grants and cost-share agreements with numerous federal agencies and stakeholder groups.

FWP crews inspected 34,121boats in 2014, the highest number since FWP began conducting inspections in 2004. Approximately 24% of inspected boats originated from out-of-state, and 7% were from states with known populations of zebra or quagga mussels. Water users came from all over North America to recreate in Montana waters (see Figure 2).

In 2014, FWP operated 20 watercraft inspection stations (see Figure 3 and Table 1). As in the last few years, FWP has focused much of its effort on border stations to prevent AIS from entering the state, but has also continued to have a significant presence at interior locations and popular waterbodies. The goal of this balanced approach is to: 1) intercept AIS at Montana's borders, 2) prevent the internal spread of AIS already present in the state, 3) reach those users who may not encounter a border or highway station during their travels, and 4) provide a presence at Montana's most popular waterbodies for outreach and education as well as providing additional prevention.

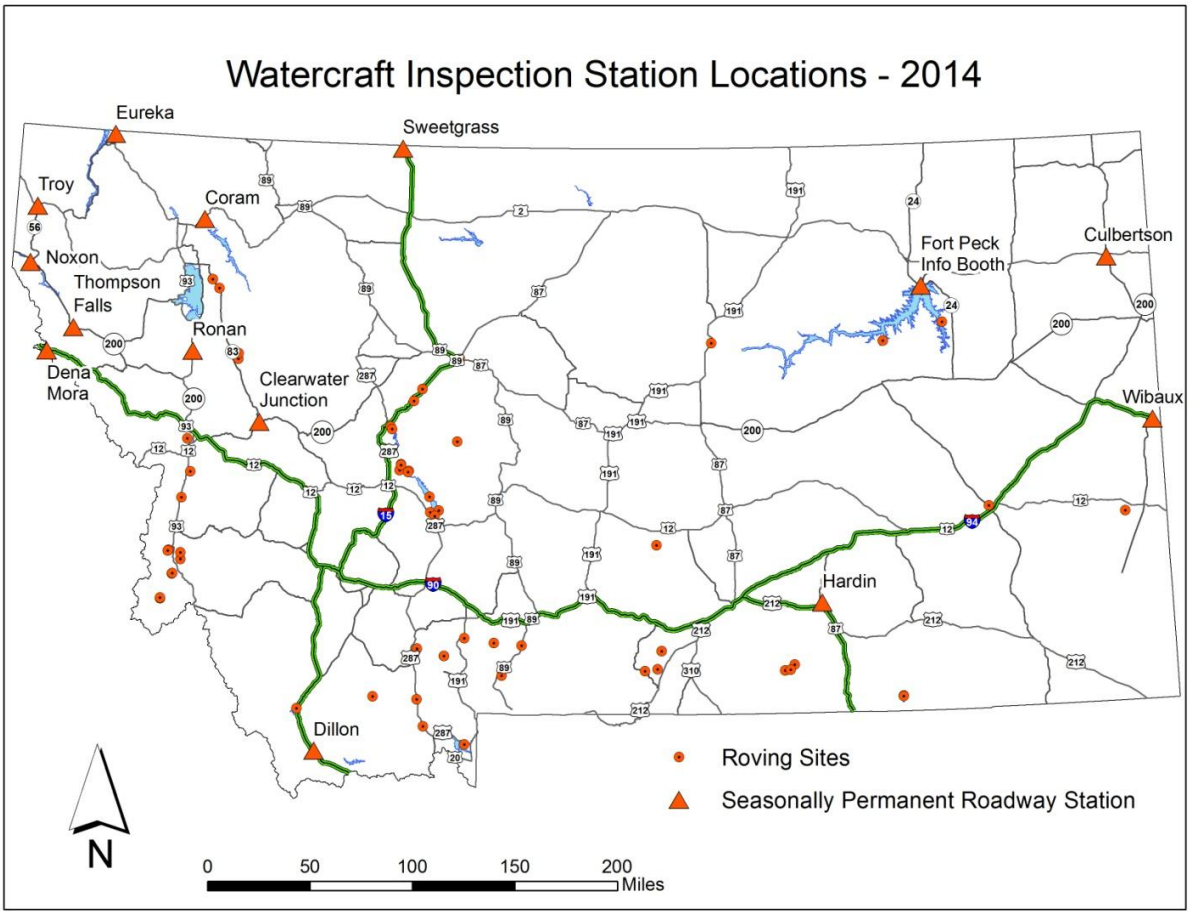


Figure 3. FWP-Operated Seasonally-Permanent Watercraft Inspection Stations and Roving Sites.

Inspectors intercepted 454 boats that were actually or potentially fouled with AIS in 2014. Boats with standing water, for example, could be carrying mussel veligers, plant fragments, or disease-causing pathogens. Standing water accounted for the highest number of infractions in 186 cases, closely followed by 182 cases of vegetation. Eurasian watermilfoil was found on 22 boats, curly-leaf pondweed on 18, and zebra/quagga mussels on 3 boats. In addition, 4 anglers possessed illegal bait and 12 were illegally transporting live fish (see Table 1).

While nearly all surveyed water users said they had at least some familiarity with the threats posed by AIS, this knowledge did not always result in adequately cleaning their boats between waterbodies, as shown by the high number of fouled boats that passed through FWP inspection stations and survey responses that indicated 34% of users did not clean their boats sufficiently between uses. Clearly, additional outreach and education is needed to further change behavior among water users.

Table 1. Summary of Inspection Station Details									
Station Name	**Hwy**	**Direction of Travel**	**Open days/ week**	**Hours per day**	**# Staff per week**	**Start date 2014**	**End date 2014**	**Total Inspections**	**Total Fouled Boats**
Border stations									
Dena Mora	I-90	East	7	12	4	5/26	8/31	1878	7
Dillon	I-15	North	7	12	4	5/23	9/1	767	13
Hardin	I-90	West	7	12	4	5/22	8/31	2247	58
Wibaux	I-94	West	7	12	3	5/23	9/1	627	1
Culbertson	Hwy 2	West	7	12	4	7/2	9/1	104	1
Eureka	Hwy 93	South	7	12	4	5/25	8/21	1119	19
Noxon	Hwy 200	East	4	10	2	5/22	9/1	747	8
Sweetgrass	I-15	South	4	7	1	6/5	8/26	20	0
Troy	Hwy 2	East	7	12	4	5/23	8/31	2370	57
Interior stations									
Fort Peck	Hwy 24	Multiple	7	12	4	6/12	9/1	1444	8
Clearwater Junction	Hwy 200/83	East/West/ South	4	10	6	5/23	8/31	7051	99
Ronan	Hwy 93	North	7	12	6	5/24	8/31	4954	17
Coram	Hwy 2	West	7	12	4	5/1	9/1	3460	20
Thompson Falls	Hwy 200	East	7	12	4	5/22	9/1	2060	106
Roving Crews									
Billings Area	N/A	N/A	4	10	2	5/30	8/16	741	7
Bozeman Area	N/A	N/A	4	10	2	5/29	8/30	951	3
Helena Area	N/A	N/A	4	10	2	5/24	8/23	1639	13
Missoula Area	N/A	N/A	4	10	2	5/23	8/21	1340	11
Swan Area	N/A	N/A	4	10	2	6/12	8/31	487	3
Fort Peck Area	N/A	N/A	4	10	2	9/4	9/28	113	1
Other-called in	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	2
TOTALS								34121	454

Table 2. Data Summary of 2014 Watercraft Inspection Stations

Station	Out-of State	In-State	Unknown Origin	Zebra/ Quagga Mussels	Eurasian watermilfoil (EWM)	Curlyleaf pondweed (CLP)	Vegetation (not EWM or CLP)	Standing Water	Marine Organisms	Illegal Bait	Illegal Fish	Other	Total Failed Inspections
Border Stations													
Culbertson	60	44	0				1						**1**
Dena Mora	1421	449	8				7						**7**
Dillon	633	132	2	1			3	5	2			1	**12**
Eureka	1065	54	0		1	1	4	13					**19**
Hardin	561	1681	5	2			8	35	9	2	1	1	**58**
Noxon	488	258	1			1	5					1	**7**
Sweetgrass	14	6	0										**0**
Troy	785	1562	23		1		40	15				1	**57**
Wibaux	367	216	44				1						**1**
Interior Stations													
Clearwater	353	6697	1		1		32	66					**99**
Coram	855	2516	89		1	1	4	13	3		1		**23**
Fort Peck Roadway	184	1259	1		5		1		1			1	**8**
Ronan	650	4224	80				1	8			1	6	**16**
Thompson Falls	359	1687	14		11	12	63	11			7	2	**106**
Roving Stations													
Billings Roving	183	557	1					**6**		1			**7**
Bozeman Roving	97	852	2				1	2					**3**
Fort Peck Roving	14	99	0		1								**1**
Helena Roving	70	1567	2				2	8		1	2		**13**
Missoula Roving	93	1243	4			1	7	3					**11**
Swan Roving	72	411	4				2	1					**3**
Other-Called In	2								2				**2**
Totals	**8266**	**25470**	**281**	**3**	**21**	**16**	**182**	**186**	**17**	**4**	**12**	**13**	**454**

Early Detection and Monitoring

Montana's AIS early detection and monitoring system has been in place since 2004. Early detection is used to find small or source AIS populations, while monitoring is used to study population trends and assess control efforts. Early detection and monitoring activities have steadily increased since the program's inception (see Figure 4).

Montana inspects all federal, state, and commercial hatcheries annually, including an on-site AIS inspection and disease and pathogen testing in fish. These same inspections are also required for wild fish transfers and importations. Montana does not allow fish to be moved or imported without an AIS inspection conducted at the source waterbody to minimize the unintentional spread of AIS. The 2014 Monitoring Summary is available online at http://fwp.mt.gov/fishing/guide/AIS/gallery.

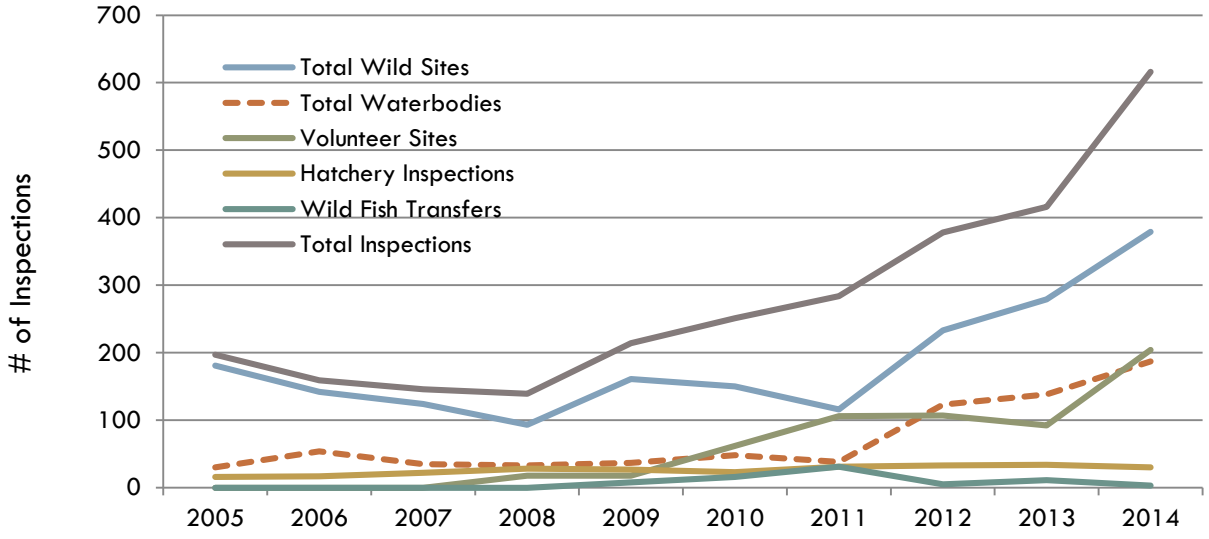


Figure 4. Annual AIS Monitoring in Montana 2005-2014 (FWP and statewide partners).

Baseline surveying also continues to be a focus for the Montana AIS program. In 2014, a seasonal aquatic plant survey team was hired to supplement the efforts of the regular monitoring by permanent staff. This team surveyed 27 different water bodies across the state and greatly added to the state's knowledge base of the plant life in these waters. Multi-taxa monitoring was conducted at 460 unique sites on 187 different waterbodies for a total of 623 sites for 2014 (Figure 5).

Plankton samples continue to be processed at the Montana AIS Laboratory in Helena, along with samples from nine other states. In 2014, the lab processed a total of 1618 samples. The FWP AIS lab continues to set the regional standard for work quality and short turn-around times.

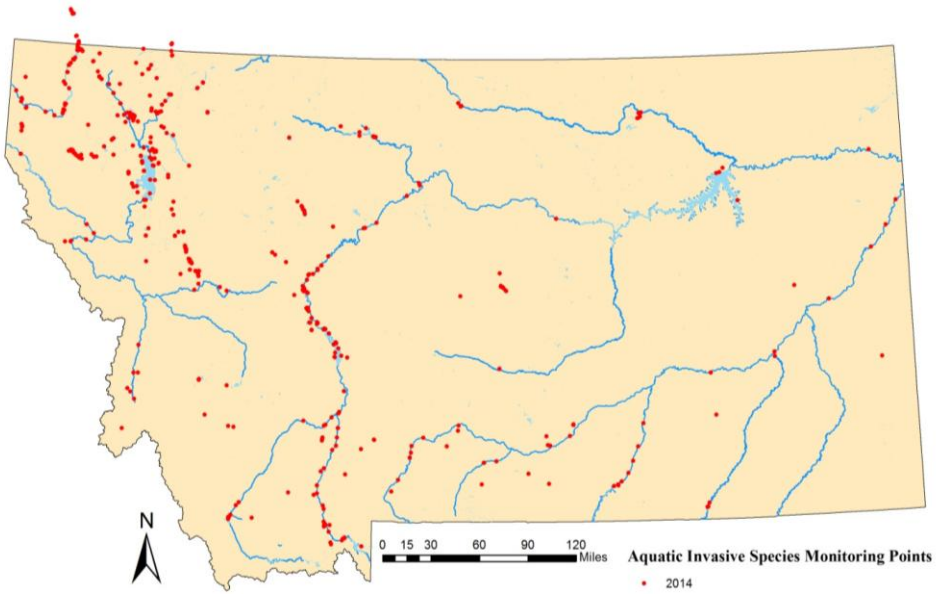


Figure 5: Map of AIS Sampling Locations, 2014.

Other than the spread of EWM and CLP from the Jefferson River to the lower Madison, no new populations of AIS were found in 2014. Several species of AIS that were found in previous years continue to pose significant problems, however. Still, the fact that no veligers or adults of zebra/quagga mussels or Asian clams have been detected in Montana is a positive sign. However, the threat is nearing as new populations in nearby states (South Dakota, Utah) continue to creep closer and closer to Montana. Current populations of AIS include:

- New Zealand mudsnails persist at Darlington Ditch, Hauser Lake, Nelson's Spring Creek, Bluewater Creek, and in the Missouri River below Holter Dam.
- Eurasian watermilfoil persists int Fort Peck Reservoir, Noxon Rapids Reservoir, Cabinet Gorge Reservoir, the Jefferson River, and the upper Missouri River.
- Gallatin County Extension located several sites with Eurasian watermilfoil on the extreme lower reaches of the Madison River while surveying for aquatic invasive plants through a grant with DNRC. These points are located within highly braided areas that have, at a minimum, seasonal connectivity with the Jefferson River prior to the actual confluence of both rivers. As such, it is not suprising that Eurasian watermilfoil was found at these sites.
- Curlyleaf pondweed remains in the Bitterroot River, Canyon Ferry Reservoir, Hauser Lake, Holter Lake, Ennis Lake, Hebgen Lake, Missouri River, Clark Fork River, and Post Creek.

The FWP AIS Lab

The FWP AIS Lab is located in Helena and processes plankton samples for Missouri River Basin, including Kansas, Nebraska, Missouri, North and South Dakota, Wyoming, and Montana. In 2013, the lab began processing samples for New Mexico and Colorado as well. Base funding for this lab is provided by the

U.S. Fish and Wildlife Service, allowing FWP to process these samples free of charge. The lab undergoes routine quality control testing by other states and has developed a reputation for high-quality work and a quick turn-around time, which averges two weeks. Figure 6 illustrates the increasing volume of samples handled by the lab each year. The lab has discovered new populations of *Dreissena spp.* (zebra and quagga mussel) veligers as well as *Corbicula sp.* (Asian clam) veligers for multiple downstream states. No veligers for either genus were found in any Montana water samples processed by the FWP AIS Lab in 2014.

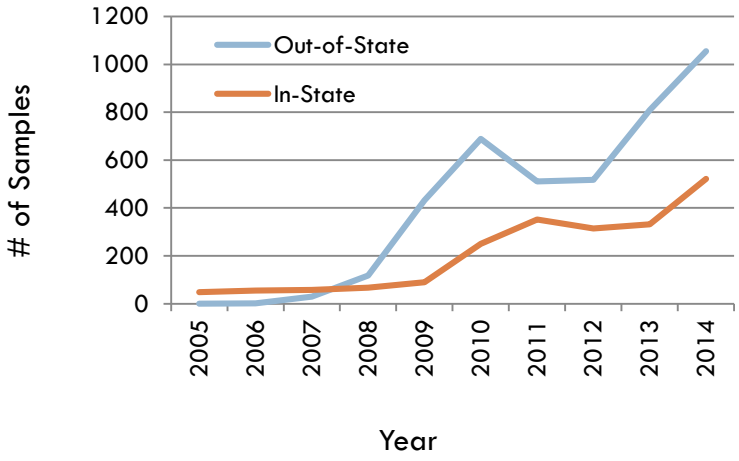


Figure 6. Number of Plankton Samples Processed by the FWP AIS Lab per Year.

Outreach and Education

The Inspect, Clean, Dry ad campaign (see below) was initiated in 2010 and has been widely used to help educate boaters about the importance of cleaning their watercraft and gear. The message has been used on billboards, tailgate wraps, postcards, signs at public boat ramps and fishing areas, the fwp.mt.gov website, fishing regulations, and on TV and radio spots. A follow-up survey in 2012 indicated that anglers and boaters are increasingly aware of the threat of aquatic hitchhikers and are cleaning their boats more frequently, but information gathered at watercraft inspection stations suggests that while awareness is very high, behavior change is lagging. In light of this, the four partner AIS agencies are looking into other outreach methods and messages that will help influence cleaning habits and ethics as well as continue to educate.

In addition to the Inspect, Clean, Dry campaign, FWP provides AIS outreach and education through:

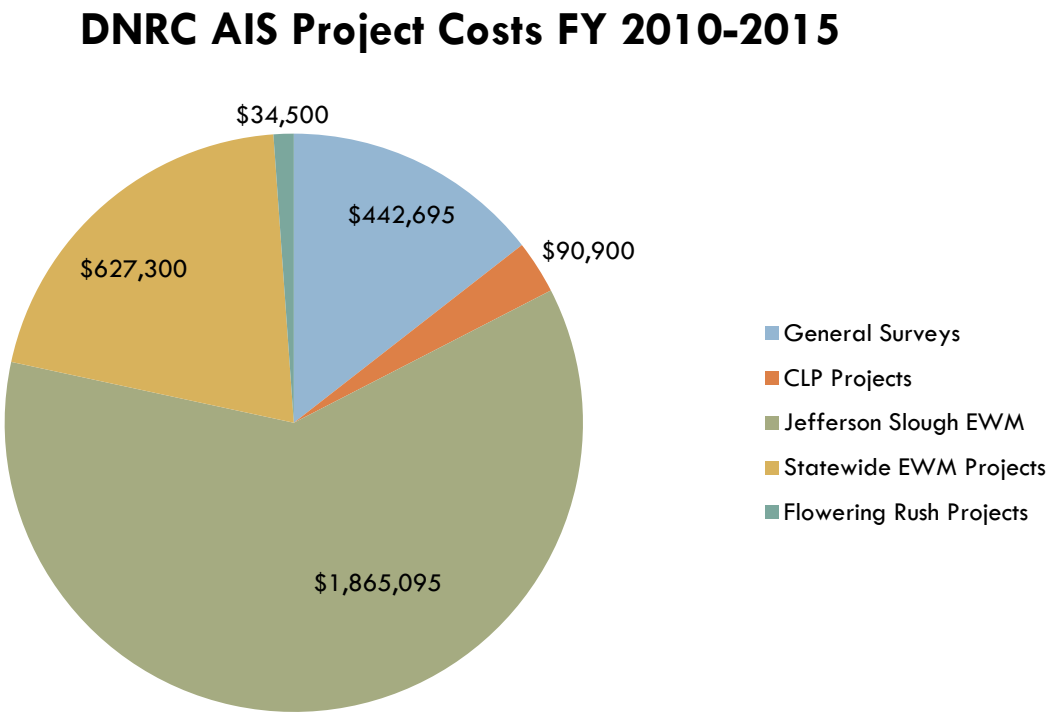
- Presentations and trainings to a wide variety of groups.
- Developing new outreach materials such as AIS-themed coloring books for young children.
- Printing and distributing thousands of educational brochures and pamphlets.
- Partnering with the Invasive Species Action Network (ISAN) to provide AIS education to thousands of school-age children around the state.

- Providing AIS information to all successful Smith River permittees.
- Having a booth at numerous outdoor festivals and industry shows.
- The inspection process at watercraft check stations.

Department of Natural Resources & Conservation

DNRC's AIS grant program is part of the state's overall strategy to thwart AIS. The program is funded through the Reclamation and Development Grants Program (RDGP) as a crucial state need. DNRC provides grants to help local communities prevent and control AIS in their areas, allowing people and communities to take an active role in AIS efforts in the state. The goal of the grants is to protect the natural resources of Montana from severe and unacceptable damage from AIS.

Through the grant program, DNRC funds activities such as on-the-ground treatment, AIS surveys and monitoring, treatment demonstration, and related activities. Preference is given to projects that address priority waters, as well as on-the-ground activities, such as surveys and removal that result in measurable control of AIS. Priority species include Eurasian watermilfoil, zebra and quagga mussels, flowering rush, and curlyleaf pondweed. Since the grant program's inception, funds have been allocated as follows:



Since 2011, DNRC has awarded more than $3 million for AIS prevention and control efforts. The following projects were awarded AIS grant funding during the 2015 biennium.

Applicant	*Project Name*	*Grant Amount*
2013 Awarded Grants		
Broadwater CD	2013 Headwaters of the Missouri River Region EWM Treatment	$8,000
Lake County	Flathead Basin Aquatic Invasive Species Control and Surveys	$58,600
Missoula County WD	AIS Monitoring & Vegetation Survey Missoula County Lakes & Rivers	$11,600
Salish Kootenai College	Herbicide Applications for Suppression of Flowering Rush & Lower Flathead River and Clark Fork River Inventory	$28,500
Sanders Co 1	Managing Aquatic Invasive Plants in Sanders County 2014	$125,000
Valley County WD	Aquatic Invasive Species on Fort Peck Reservoir	$28,330
Total Grants Awarded 2013		$260,030.00
2014 Awarded Grants		
Broadwater CD 2	2014 Headwaters of Missouri River Region EWM Control	$18,800
Clearwater Resource Council	2014 AIS Volunteer Monitoring High-Risk Lakes in Clearwater Valley	$5,000
Lake Co 1	Flathead Basin AIS Strategic Plan Implementation Effort 1 (Flathead River CLP Removal)	$29,990
Lake Co 2	Flathead Basin AIS Strategic Plan Implementation Effort 2 (Watercraft Inspection Stations Coram, Flathead Lake, Swan Lake, Whitefish Lake)	$12,030
Lake Co 3	Flathead Basin AIS Strategic Plan Implementation Effort 3 (AIS Sniffer Dogs)	$10,000
Liberty Co WD	Lake Elwell CLP Monitoring/Bottom Barrier Project	$2,800
MSU Gallatin Co Extension	Gallatin Co AIS Monitoring	$5,000
Ravalli Co WD	Bitterroot River CLP Management Plan	$4,000
Sanders Co 2	Managing Aquatic Invasive Plants in Sanders County 2014	$30,000
Total Grants Awarded 2014		$117,620.00
Total Grants Awarded—2015 Biennium		**$377,650.00**

For more information about DNRC's AIS grants, visit: http://dnrc.mt.gov/cardd/AIS/AISGrant.asp.

Department of Agriculture

In July 2013, the Governor's "Blueprint for improving AIS in Montana" instructed the transfer of the aquatic noxious weed program from the Department of Agriculture to the Department of Fish, Wildlife and Parks. The Department of Agriculture's role in the aquatic program in Fiscal Years 2014 and 2015 has thereby been reduced. MDA attends the AIS stakeholder meetings and is an active partner regarding aquatic issues. While FWP is the lead agency, MDA contributes to the aquatic noxious weed issues—three aquatic weeds are listed as noxious weeds on the Department's Statewide Noxious Weed List.

MDA continues to support aquatic projects through the Noxious Weed Trust Fund Grants program. MDA has funded aquatic control and research projects in the amount of $806,355 since 2007.

Department of Transportation

Montana Department of Transportation has been informally involved with the AIS Program since 2004, and was made a formal partner agency in the statewide program in 2013. MDT supports the program by:

- Providing sites for the majority of watercraft inspection stations.
- Having licensing and permitting personnel question boat haulers during the permitting process and including a restriction to permits requiring boat haulers to contact FWP upon entry into Montana.
- Partnering with FWP to provide training to all Motor Carrier Services (MCS) Officers on AIS, including basic biology, identification, and inspection.
- Having field officers review and provide origin and destination notifications on commercially hauled boats and water-based equipment at Ports of Entry (POE's). Officers evaluated 60 such vessels in 2014, some of which had not previously passed through an FWP-operated check station. Three of those boats were fouled, and FWP personnel were called in to assist.
- Developing a MCS Watercraft Check Form for these inspections and sending timely copies to FWP AIS staff.
- Distributing AIS pamphlets to haulers at POE's and weigh stations.
- Attending and participating in monthly AIS update and coordination meetings with FWP, DNRC, and MDA, and in biennial AIS Summits.
- Providing signage (including permanent informational signs at several border entries), gravel, sandbags, and other materials and support to watercraft inspection stations.

MONTANA INVASIVE SPECIES ADVISORY COUNCIL

Governor Bullock signed Executive Order No. 13-2014 (see Appendix E) creating the Montana Invasive Species Advisory Council (MISAC) on December 4, 2014. The council will be comprised of twenty-one members, appointed by the governor. A call for nominations was sent out to a diverse group of invasive species experts, stakeholders, and interested parties in December 2014 to identify individuals to serve on the MISAC and represent state and federal agencies, conservation districts, non-profits, the hydropower industry, private industry, and other key organizations engaged in AIS.

Council members were selected in February 2015 and the inaugural meeting will take place in the first quarter of 2015. The purpose of the MISAC shall be to advise the Governor on a science-based, comprehensive program to identify, prevent, eliminate, reduce, and mitigate the impacts of invasive species in Montana. For more information on the Montana Invasive Species Council please contact council liaison Stephanie Hester at 406-444-6691, shester@mt.gov.

SUMMARY

Now in its second decade, the Montana AIS Program continues to grow and evolve. The AIS landscape is constantly changing, and many worrisome AIS are creeping closer to Montana. In response, partner agencies are bolstering efforts and expanding outreach and coordination with local communities and AIS organizations. The implementation of the Governor's blueprint resulted in several substantive modifications, and the formation of the Montana Invasive Species Advisory Council in late 2014 will likely lead to new ideas and an overarching strategy.

In the next biennium, prevention will continue to be a top priority. Prevention will be accomplished by maintaining the mandatory watercraft inspection program and working with bordering states and provinces to establish a perimeter around the five northwest states where invasive mussels have yet to be detected—Wyoming, Idaho, Washington, Oregon, and Montana.

Statewide early detection and monitoring work will also continue, with a focus on completing plant surveys of high-risk waters. Grants to local entities for on-the-ground prevention and control have been largely successful in providing the means to cities and counties to address AIS in their localities, but are subject to available funding from the legislature. Hopefully, the legislature will continue to recognize the importance of this aspect of the statewide AIS program. The Inspect, Clean, and Dry ad campaign will be freshened with new taglines to address issues like drive-bys and general noncompliance.

AIS pose an ongoing and increasingly imminent threat to Montana. Adverse environmental effects, economic impacts, and public health issues are at stake in the fight against AIS. Montana's partner agencies will continue to work together, making AIS prevention and management a top priority.

APPENDIX A: MONTANA AIS GRANT PROGRAM PRIORITIES

The three invasive aquatic plants listed below are noxious weeds in Montana. These plants are targeted for management based on their potential impacts to aquatic environments, agriculture, hydropower, and water-based recreation. Beyond these plants, quagga and zebra mussels are Montana's biggest AIS threat.

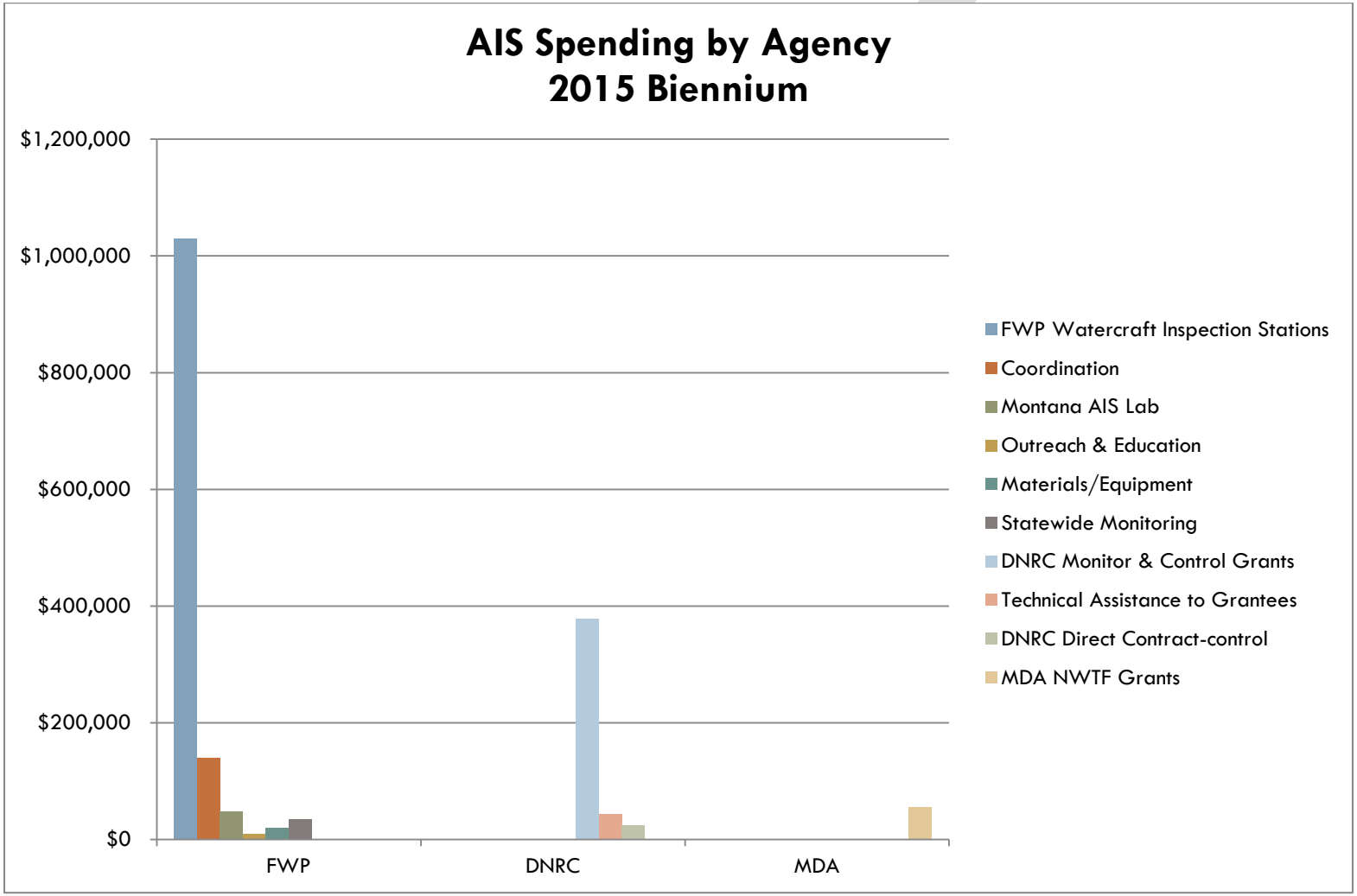
Eurasian watermilfoil (Myriophyllum spicatum) occurs at five locations in Montana: the lower Jefferson River, upper Missouri River and associated reservoirs (to upper Canyon Ferry Reservoir), Fort Peck Reservoir, lower Clark Fork River (Noxon and Cabinet Gorge Reservoirs), and the Lower Madison River. Control was initiated on all EWM-infested water bodies in 2011, with follow-up treatments in 2012, 2013, and 2014. Control options for EWM in natural riverine systems are limited mainly to hand removal and barriers.

Curly-leaf pondweed (Potamogeton crispus) is widespread in the Missouri River Watershed from Hebgen Lake downstream to Fort Peck Reservoir. It is considered a new invader in the upper Flathead River (above Flathead Lake) where control programs were initiated in 2013 and continued in 2014. The plant is widespread below Flathead Lake and throughout the lower Clark Fork drainage.

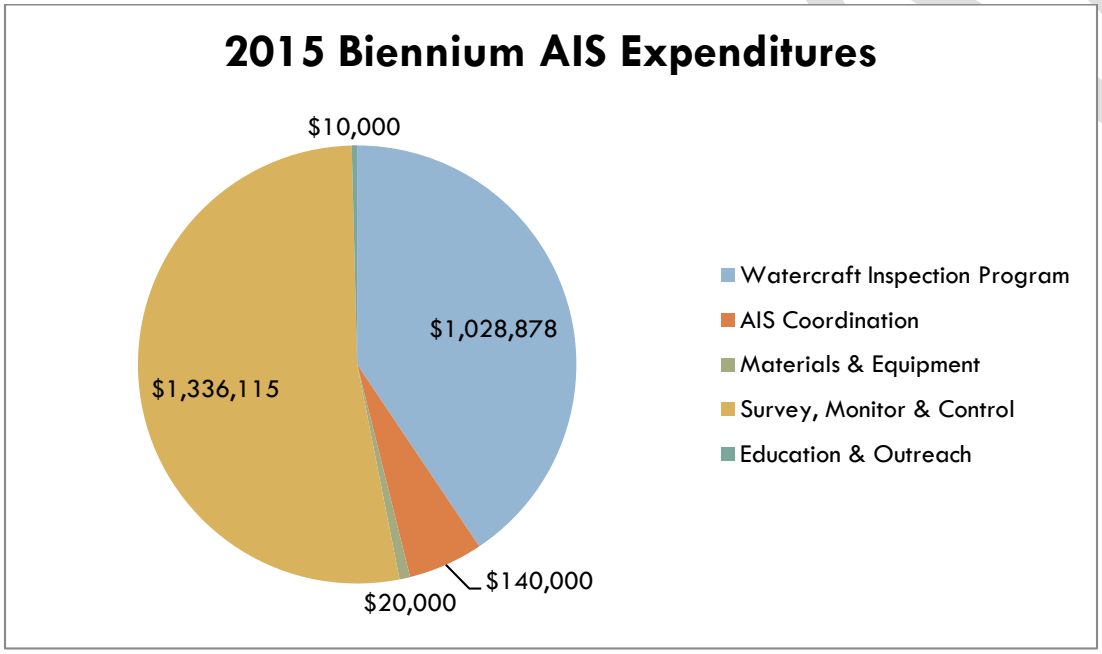
Flowering rush (Butomus umbellatus) infests more than 2000 acres in Flathead Lake and downstream waters of the Flathead and Clark Fork drainages into Idaho. The flowering rush population in Montana is the primary source of infestation in the Columbia River Basin. In Montana, the flowering rush is a sterile hybrid (does not spread by seed), but spreads very easily by root fragments. Effective control options for flowering rush are not available at this time; however, research is on-going in Montana and Idaho.

Zebra and quagga mussels (Dreissena polymorpha, Dreissena rostriformis) have caused profound ecological changes in freshwater ecosystems where established, including loss of phytoplankton and microzooplankton. Zebra mussels cause mortality of native clams and mussels, and cost municipal and industrial water facilities millions of dollars in control. If introduced into Montana, the result will include significant environmental, agricultural and industrial damage. As of the drafting of this report, Montana is believed to be mussel-free; however the threat is closing in from the south, north, and east.

APPENDIX B: AIS STATEWIDE SPENDING



	FWP	DNRC	MDA	
FWP Watercraft Inspection Stations	$1,028,878	$0	$0	
Coordination	$140,000	$0	$0	
Montana AIS Lab	$48,110	$0	$0	
Outreach & Education	$10,000	$0	$0	
Materials/Equipment	$20,000	$0	$0	
Statewide Monitoring	$35,000	$0	$0	
DNRC Monitor & Control Grants	$0	$377,650	$0	
Technical Assistance to Grantees	$0	$44,000	$0	
DNRC Direct Contract-Control	$0	$25,000	$0	
MDA NWTF Grants	$0	$0	$806,355	
Total Expenditures	$1,281,988	$446,650	$806,355	**$2,534,993**



APPENDIX C: LAKES, RESERVOIRS, RIVERS SURVEYED BY COUNTY

County	Lake or Reservoir		
Beaverhead	Beaverhead River	Elk Lake	Poindexter Slough
	Big Hole River	Lima Reservoir	Red Rock River
	Clark Canyon Reservoir	Twin Lakes	
Big Horn	Afterbay Dam/Bighorn River	Bighorn Lake	Tongue River Reservoir
	Tongue River		
Blaine	Floyd Flynn Reservoir	Reser Reservoir	
Broadwater	Canyon Ferry Reservoir	Indian Creek Kids Fishing	Toston Reservoir
	Cottonwood Slough/ponds	Missouri River	
Carbon	Bluewater Creek	Cooney Reservoir	
Cascade	Largent Bend Pond	Pelican Point Ponds	Smith River
	Missouri River	Roe River	Sun River
Custer	Homestead Reservoir	Yellowstone River	
Deer Lodge	Clark Fork River	Warm Springs Creek	Warm Springs Kids Pond
	Georgetown Lake		
Fallon	Maier Reservoir	South Sandstone Reservoir	
Fergus	Big Spring Creek	Missouri River	Upper Carter Pond
	East Fork Reservoir		
Flathead	Ashley Lake	Hanson-Doyle Lake	McGregor Lake
	Beaver Lake	Hungry Horse Reservoir	Murphy Lake
	Blanchard Lake	Lake Blaine	Murray Lake
	Bootjack Lake	Lake Five	Rogers Lake
	Dollar Lake	Lake McDonald	Skyles Lake
	Echo Lake	Lion Lake	Smith Lake
	Egan Slough	Little Bitterroot Lake	Spencer Lake
	Fish Lake	Little McGregor Lake	Upper Stillwater Lake
	Flathead Lake	Lost Coon Lake	Sylvia Lake

	Flathead River	McGilvray Lake	Tally Lake
	Foy's Lake	Middle Fork Flathead River	Whitefish Lake & River
	Halfmoon Lake		
Gallatin	Bostwick Creek	Glen Park Lake	Quake Lake
	Darlington Ditch	Hebgen Lake	Madison River
	Gallatin Pond	Hyalite Creek	Missouri River
	Gallatin River	Hyalite Reservoir	Three Forks Ponds
Garfield	Fort Peck Lake		
Glacier	Lake Josephine	Marias River	Milk River
Granite	East Fork Reservoir	Georgetown Lake	Moose Lake
	Echo Lake	Lower Willow Creek	Rock Creek
Hill	Bailey Reservoir	Beaver Creek Reservoir	Milk River
	Bear Paw Lake	Fresno Reservoir	Kremlin Ponds
Jefferson	Boulder River	Jefferson Slough	South Fork Quartz Creek
	Jefferson River	Slaughterhouse Slough	
Judith Gap	Ackley Lake		
Lewis & Clark	Bean Lake	Helena Valley Regulating Reservoir	Missouri River
	Blackfoot River	Holter Reservoir	Nilan Reservoir
	Canyon Ferry Reservoir	Lake Helena	Spring Meadow Lake
	Dearborn River	Little Prickly Pear Creek	Willow Creek Reservoir
	Hauser Reservoir		
Lake	Flathead Lake	Kicking Horse Reservoir	Pablo Reservoir
	Flathead River	Lake Mary Ronan	Post Creek
	Horseshoe Lake	Loon Lake	Swan Lake
	Jette Lake	Lower Crow Reservoir	Swan River
	Jocko River	Ninepipe Reservoir	Van Lake
Liberty	Lake Elwell (Tiber Reservoir)		

Lincoln	Alvord Lake	Glen Lake	Savage Lake
	Big Therriault Creek	Kootenai River	Sophie Lake
	Bull Lake	Lake Koocanusa	Spar Lake
	Cad Lake	Lavon Lake	Tetrault Lake
	Cibid Lake	Leon Lake	Topless Reservoir
	Crystal Lake	Little Loon Lake	Thompson Chain of Lakes
	Dickey Lake	Murphy Lake	Yaak River
Madison	Cataract Lake	Madison River	Ruby River Reservoir
	Cliff Lake	O'Dell Creek	Ruby River
	Ennis Lake	Quake Lake	Wade Lake
	Willow Creek Reservoir		
Meagher	Lake Sutherlin	Newlan Creek Reservoir	North Fork Musselshell River
Mineral	Clark Fork River	Fish Creek	St. Regis River
Missoula	Beavertail Hill Pond	Harpers Lake	Petty Creek
	Big Sky Lake	Hidden Lake	Pierce Lake
	Blackfoot River	Holland Lake	Placid Lake
	Blanchard Lake	Lake Alva	Rainy Lake
	Clark Fork River	Lake Elsina	Salmon Lake
	Clearwater River	Lake Inez	Seeley Lake
	Cottonwood Creek	Lake Marshall	Summit Lake
	Elbow Lake	Lindbergh Lake	Tuppers Lake
	Frenchtown Pond	Lolo Creek	
Park	Dailey Lake	Sacagawea Lagoon	Yellowstone River
	Nelson Spring Creek		
Philips	Compton Reservoir	Nelson Reservoir	Taint Reservoir
	Gullwing Reservoir	Sagebrush Reservoir	Wapiti Reservoir
Pondera	Abbott Lake	Lake Frances	Swift Reservoir
	Birch Creek		
Powder	Powder River		

Powell	Blackfoot River	Coopers Lake	Tin Cup Lake
	Browns Lake	Mud Lake	Upsata Lake
	Conleys Lake	Nevada Creek Reservoir	
Prairie	Homestead Lake		
Ravalli	Bailey Lake	East Fork Bitteroot River	Painted Rocks Reservoir
	Bitterroot River	Lake Como	
Rosebud	Castle Rock Reservoir	Yellowstone River	
Sanders	Banana Lake	Noxon Reservoir	Thompson Chain of Lakes
	Cabinet Gorge Reservoir		
Sheridan	Raymond Pond		
Silver Bow	Silver Bow Creek		
Stillwater	Stillwater River	Yellowstone River	
Sweetgrass	Boulder River	Yellowstone River	
Teton	Bynum Reservoir	Freezeout Lake	Gibson Reservoir
	Eyraud Lake	Freezeout Ponds	Pishkun Reservoir
	Eureka Reservoir		
Toole	Dunkirk Reservoir	Lake Shel-oole	Tiber Reservoir
Valley	Desert Coulee Reservoir	Fort Peck Lake	Valley Reservoir
Wheatland	Deadman's Basin Reservoir	Martinsdale Reservoir	Musselshell River
Yellowstone	Lake Elmo	Laurel Pond	Yellowstone River
	Lake Josephine		

Note: Survey method dependent on a variety of factors such as risk of water body for infestation, previous survey efforts, type of system, observer expertise, etc.

APPENDIX D: INFESTED MONTANA WATERS

Lakes/Reservoirs	County	Type of AIS*
Beaver Lake	Flathead	EWM
Cabinet Gorge Reservoir	Sanders	EWM, CLP, FR
Ennis Lake	Madison	CLP
Flathead Lake (northern half)	Lake/Flathead	FR, CLP
Flathead Lake (flowering rush survey)	Flathead	FR
Flathead Lake (portions-southern)	Flathead	FR
Fort Peck Dredge Cuts (Below Ft Peck Dam)	Valley	EWM
Fort Peck Reservoir (portions)	Valley others	EWM
Fort Peck Trout Pond	Valley	CLP
Gallatin Pond	Gallatin	CLP
Hauser Lake	Lewis & Clark	CLP
Hebgen Reservoir	Gallatin	CLP
Helena	L&C	CLP
Helena Holding Reservoir	L&C	CLP
Holter (high risk sites)	L&C	CLP
Kicking Horse Reservoir	Lake	CLP
Ninepipe Reservoir	Lake	CLP
Noxon Reservoir	Sanders	EWM, CLP, FR
Pablo Reservoir	Lake	CLP, FR
Thompson Falls Reservoir	Sanders	CLP, FR
Tiber Reservoir (Lake Elwell)	Liberty	CLP
Toston Reservoir	Broadwater	EWM, CLP

*EWM-Eurasion watermilfoil, CLP-Curly-leaf pondweed, FR-Flowing rush

River or River Segment	County	Type of AIS*
Jefferson (lower)	Jefferson	EWM, CLP
Jefferson Slough	Jefferson	EWM, CLP
Missouri (Three-Forks to Toston Reservoir)	Broadwater	EWM, CLP
Missouri River (Toston Dam to Canyon Ferry)	Broadwater/ Gallatin	EWM, CLP
Missouri (Ft Peck Dam to Frazer Rapids)		EWM
Bitterroot River (6 sites)		CLP
Bitterroot River (river mile 41 to river mile 21)	Ravalli	CLP
Clark Fork River (10 sites)	Missoula	CLP
Clark Fork River Fishing Access Site	Powell/ Missoula	CLP
Clark Fork River	Sanders	CLP, FR
Cottonwood slough/ditch/pond4/ deposition area where Missouri enters Canyon Ferry (considered part of Missouri)	Broadwater	EWM, CLP
Flathead River: 10 miles upstream from lake; FR at Fennon Slough but not observed above	Flathead	CLP, FR
Flathead River (river mile 66 to river mile 36) about 10 miles below Kerr Dam	Lake	CLP at river mile 45, FR
Gallatin	Gallatin	CLP
Madison	Madison	CLP, EWM
Lower Madison (new population likely from connectivity to Jefferson)	Madison	CLP, EWM
Missouri (Fort Benton to Loma)	Chouteau	CLP
Missouri (Judith Landing to Holmes Council)	Chouteau	CLP
Roe	Cascade	CLP

*EWM-Eurasian watermilfoil, CLP-Curly-leaf pondweed, FR-Flowing rush

APPENDIX E: EXECUTIVE ORDER NO. 13-2014

STATE OF MONTANA
OFFICE OF THE GOVERNOR
EXECUTIVE ORDER No. 13-2014

ESTABLISHING THE MONTANA INVASIVE SPECIES ADVISORY COUNCIL

WHEREAS, the land, water and other resources of Montana are being impacted and threatened by the invasion of an increasing number of harmful, nonnative species; and

WHEREAS, monitoring, controlling and preventing invasive species provides Montana with tools to mitigate the impacts of invasive species and protect the State's diverse ecosystems, and

WHEREAS, these impacts of current and potential infestations result in damage to Montana's environment and cause hardships to public, private and tribal natural resources and economic resources; and

WHEREAS, representatives of public and private organizations with an interest in controlling current infestations and preventing the introduction and spread of harmful invasive species need a mechanism for cooperation, collaboration and development of policy recommendations for statewide plans; and

WHEREAS, invasive species management and response spans the jurisdictions and mandates of multiple different international, federal, state, local and tribal governments; and

WHEREAS, it is necessary that all international, federal, state, local and tribal agencies responsible for invasive species coordinate their management and research actions to the greatest extent possible to ensure the best utilization of available resources and prevent duplication of effort; and

WHEREAS, a need exists to integrate and build upon the strength of existing invasive species programs, to identify areas that need improvement and integrate efforts into an efficient unified state response to the threat of invasive species and their impacts; and

WHEREAS, public perception and understanding of invasive species is critical to prevention and management of these species, advancing a common, consistent understanding of invasive species issues is necessary.

NOW, THEREFORE, I, STEVE BULLOCK, Governor of the State of Montana, by the authority vested in me under the laws and Constitution of the State of Montana, do hereby establish the Montana Invasive Species Advisory Council.

PURPOSE

The purpose of the Montana Invasive Species Advisory Council shall be to advise the Governor on a science-based, comprehensive program to identify, prevent, eliminate, reduce, and mitigate the impacts of invasive species in Montana.

DUTIES

The Montana Invasive Species Advisory Council's responsibilities shall be:

1. To provide policy level recommendations, direction and planning assistance for combatting infestations of invasive species throughout the state and preventing the introduction of others;

2. To foster cooperation, communication and coordinated approaches that support international, federal, regional, state, local, and tribal initiatives for the prevention, early detection and control of invasive species;

3. To serve as a nonpartisan forum that would achieve a science-based, interdisciplinary and comprehensive understanding of the current status, trends and potential threats of invasive species in Montana;

4. To identify priorities for prevention and control of invasive species in Montana;

5. To recommend and take measures that will encourage prevention, early detection and control of harmful invasive species in Montana;

6. To report to the Governor's Office on the status of control and prevention efforts statewide;

7. To champion priority invasive species issues identified by stakeholders to best protect the state;

8. To advise and work with agency personnel, local efforts, and the scientific community to implement program priorities. Likewise, agency personnel will provide technical expertise as requested and as staff resources are available; and

9. To work toward establishing permanent funding for invasive species priorities.

COMPOSITION AND ORGANIZATION

Members shall include 21 members, appointed by the Governor from the following categories: Tribal Government Representative; County Weed District Representative; MSU Extension Representative; Montana Conservation District Representative; Conservation Organization Representative; Private land owner; Natural Resource Group; Private Industry; MT Department of Natural Resources Representative; MT AIS Coordinator (MT Fish, Wildlife and Parks); MT

Noxious Weed Coordinator (MT Department of Agriculture); MT Department of Transportation Representative; Hydropower utility; U.S. Forest Service; U.S. Department of Interior, Bureau of Land Management; U.S. Fish and Wildlife Service; U.S. Department of Agriculture, Animal, Plant Health Inspection Service; U.S. Natural Resources Conservation Service; U.S. National Park Service; U.S. Army Corps of Engineers; and U.S. Bureau of Reclamation.

Bylaws and voting members will be determined by consensus of the Council. Additional members may be added by consensus of the Advisory Council. These could include additional representatives of federal entities, local government organizations, tribal governments, Montana universities and private and for-profit organizations with an interest in the wellbeing of Montana pertaining to invasive species.

The Council shall meet no less than twice annually. The Chairperson of the Council shall be democratically elected by the voting members of the Council every other year. The Council shall be attached to the Montana Department of Natural Resources and Conservation for administrative purposes, and the Council Chairperson and the Director of the Department of Natural Resources will serve as liaisons to the Governor's office. The Council shall submit a report of its activities to the Governor and to the Director of the Department of Natural Resources annually.

DURATION

This Order is effective immediately, rescinds the Montana Noxious Weed Summit Advisory Council, and shall expire on December 1, 2016, unless otherwise renewed or terminated by subsequent Executive Order.

Given under my hand and the GREAT SEAL of the State of Montana, this fourth day of December, 2014.

STEVE BULLOCK, Governor

ATTESTED:

LINDA MCCULLOCH, Secretary of State